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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,419	06/24/2003	Duane Q. Huynh	SJO920020001US1	4325

7590 05/05/2005

Hitachi Global Storage Technologies
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EXAMINER

CHEN, TIANJIE

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,419

Applicant(s)

HUYNH, DUANE Q.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20030624.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Non-Final Rejection

Election/Restrictions

1. Applicant's election without traverse of claims 1-12 in the reply filed on 01/14/2005 is acknowledged.

Claim Objections

2. Claim 4 is objected to because of the following informalities:

In claim 4, line 2; "leads a" should be changed to --leads, a--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 5 recites "wherein the damping material has dynamic loss modulus of 50% to 110%." However, as depicted by Oxford in US 6,485,241(column 2, lines 52-53), the dynamic loss modulus should have a unit and be referred to certain frequency range. Applicant recites a dynamic loss modulus without unit and the corresponding frequency range, it renders indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Shin (US 2003/0086214).

Claim 1, Shin shows a damped flexible cable (FPC) for use in a magnetic memory device (Fig. 6C; [0048] to [0052]) including: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead.

Claim 2, Shin further shows that the vibration damping material is completely enclosed within the insulation, and wherein end portions of the electrically conductive lead is inherently exposed for connecting the circuit.

Claim 3, Shin further shows that the vibration damping material 40 includes first and second layers disposed at opposite sides of the electrically conductive lead.

Claim 4, Shin further shows a plurality of electrically conductive leads, a portion of which are parallel to one another.

Claim 5, the damping material has a dynamic loss modulus.

Claim 6, Shin further shows that the damping material covers an area at least $\frac{1}{3}$ the area of the flexible cable.

Claim 7, Shin further shows that the damping material covers an area at least $\frac{1}{2}$ the area of the flexible cable.

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Claim 10, Shin shows a head suspension assembly in Fig. 4 for use in a magnetic recording device, including: a suspension 66, a magnetic transducer 65 connected with the suspension; and a flexible cable 41 electrically connected with the transducer, the flexible cable further comprising: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead.

Claim 11, Shin shows a magnetic hard disk drive, comprising: a housing; a magnetic disk rotationally mounted within the housing; a head suspension assembly pivotally mounted within the housing; an amplifier circuit; and a flexible cable electrically connected with the amplifier circuit, the flexible cable further comprising: an electrically conductive lead; a vibration damping material disposed adjacent to the electrical lead; and an insulating material surrounding the vibration damping material and at least a portion of the electrical lead.

Claim 12, Shin shows a flexible cable for use in a magnetic memory device, including: a first layer of electrically insulating material 45; a second layer of electrically insulating material 43; an electrical lead 47; and a vibration damping material 40; wherein the electrical lead and the vibration damping material are sandwiched between the first and second layer of electrically insulating material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

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ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin.

Claims 8 and 9, Shin shows a damped flexible cable, but does not specifically disclose that the damping material is configured with relatively wide areas and relatively narrow areas as measured in a lateral dimension and the damping material is configured with relatively thick portions and relatively thin portions.

However, it would have been obvious at the time the invention was made to one of ordinary skill in the art to recognize that the damping material is configured with relatively wide areas and relatively narrow areas as measured in a lateral dimension and the damping material is configured with relatively thick portions and relatively thin portions. The rationale is as follows: Applicant does not disclose unexpected results from the change of the width and the thickness. One of ordinary skill in the art could have been modifying the width and the thickness during designing of the cable for use for different purposes. Also Applicant does not specify the range of the change in width and thickness. One of ordinary skill in the art would at least have been expecting the change in the tolerated range occurred in manufacturing.

Conclusion

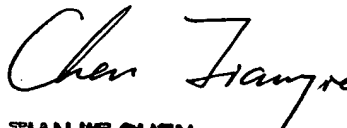
6. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER